



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/562,104

12/22/2005

Steven C. Deane

GB03 0088 US1

8103

24738

7590

08/21/2007

PHILIPS ELECTRONICS NORTH AMERICA CORPORATION
INTELLECTUAL PROPERTY & STANDARDS
370 W. TRIMBLE ROAD MS 91/MG
SAN JOSE, CA 95131

EXAMINER

NGUYEN, KIMNHUNG T

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

08/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/562,104	Applicant(s) DEANE ET AL.	
	Examiner Kimnhung Nguyen	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Preliminary Amendment filed on 12/22/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 7 and 9-11 is/are rejected.
- 7) ☒ Claim(s) 2-4, 6 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/22/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This application has been examined. The claims 1-11 are pending. The examination results are as following.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Bell et al. (US 6,970,152) in view of Birk et al. (US 6,943,786).

As to claim 1, Bell et al. discloses in figs. 1-3, an active matrix display device comprising an array of pixels arranged in rows and columns, wherein each column of pixels shares a column conductor to which pixel drive signals are provided, wherein column address circuitry is provided for generating the pixel drive signals (see fig. 1 of prior art), the column address circuitry comprising an output buffer (see column driver circuit includes an upper amplifier circuit (X31), a lower amplifier circuit (X32), and four switching circuit (S1-S4) for providing a pixel drive signal to a column conductor. Bell et al. does not disclose that wherein the positive and negative slew rates of the output buffer are different.

Birk et al. discloses in fig. 5, the positive and negative slew rates of the output buffer (10 and 14) are different (see col. 7, lines 40-48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the positive and negative slew rates of the output buffer are

Art Unit: 2629

different as taught by Birk et al. into the active matrix display device of Bell et al. for producing the claimed invention because this would make the output pulse's positive slew rate controllable, with negative slew rate being as quick as possible (see col. 7, lines 45-48).

As to claim 5 adds into claim 1, Bell et al. discloses further wherein each pixel comprises an n-type switching transistor (see fig. 2, col. 5, lines 37-43). Bell et al. does not disclose wherein the negative slew rate is slower than positive slew rate. However, Birk et al. discloses in fig. 5, the positive and negative slew rates of the output buffer (10 and 14) are different (see col. 7, lines 40-48), and should have an inherent the negative slew rate is slower than positive slew rate.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the positive and negative slew rates of the output buffer are different as taught by Birk et al. into the active matrix display device of Bell et al. for producing the claimed invention because this would make the output pulse's positive slew rate controllable, with negative slew rate being as quick as possible (see col. 7, lines 45-48).

As to claim 7 adds into claim 1, Bell et al. discloses further, wherein each pixel comprises a p-type switching transistor (see col. 5, lines 40-44), and an inherent the positive slew rate is lower than the negative slew rate (see col. 7, lines 40-48).

As to claims 9, 10 adds into claim 1, Bell et al. discloses further, comprising an output buffer for each column (see fig. 3, col. 4, lines 11-20) and comprising an active matrix LCD display device (see col. 1, lines 14-23).

As to claim 11 is rejected as the same claim 1.

Allowable Subject Matter

4. **Claims 2-4,6 and 8** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

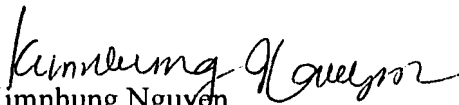
None of the cited art teaches or suggests that wherein the output buffer comprises a first transistor connected between the column conductor and a high power line and a second transistor connected between the column conductor and a low power line, wherein the slew rates of the first and second transistors are different as claim 2; or wherein the output buffer comprises a first transistor connected between the column conductor and a high power line and a second transistor connected between the column conductor and a low power line, wherein the second transistor has a lower maximum current drive than the first transistor as claims 6 and 8.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number is (571) 272-7698. The examiner can normally be reached on MON-FRI, FROM 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Kimnhung Nguyen
Patent Examiner
August 17, 2007